**EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Nyeemah Grazier on May 8, 2009.

The claims have been amended as follows:

1 – 4. (cancelled)

5. (currently amended) ~~The polytrimethylene terephthalate hollow staple composite fibers as claimed in claim 1, wherein the hollow staple composite fiber in the~~ Polytrimethylene terephthalate hollow composite staple fibers comprising two parts which are constituted of polytrimethylene terephthalate resin components having different intrinsic viscosities from each other, said parts arranged in a side-by-side arrangement ~~is constituted~~ constituting ~~from~~ a larger side part formed from ~~the~~ a high viscosity resin component and a smaller side part formed from ~~the~~ a low viscosity resin component, and the only one hollow part is located within the larger side part [[.]] wherein,

(1) said high viscosity resin component has an intrinsic viscosity in the range of

from 0.50 to 1.4 dl/g and said low viscosity component has an intrinsic viscosity in the range from 0.40 to 1.30 dl/g, and 0.1 to 0.5 dl/g below that of the said high viscosity resin component, the intrinsic viscosities being determined in o-chlorophenol at a temperature of 35°C;

(2) the cross-section of said only one hollow part has a cross-sectional area corresponding to 2 to 15% of the total cross-sectional area of the hollow composite staple fiber; and

(3) the hollow composite staple fibers exhibit an average web area thermal shrinkage of 30 to 60% determined by such a measurement that the composite staple fibers having a fiber length of 51 mm are formed into a web having a basis mass of 30 g/m2 by a roller carding machine, a plurality of specimens having dimensions of 20 cm x 20 cm are prepared from the web, the specimens are heat-treated in a hot air circulation dryer at a temperature of 120°C for 10 minutes, to allow the specimens to freely shrink, the web area thermal shrinkages of the specimens are determined in accordance with the equation (1):

Web area thermal shrinkage (%) = [(A- B)/A] x 100 (1)

wherein A represents an area of each specimen before the heat-treatment and B represents an area of the specimen after the heat-treatment, and an average of the resultant web area thermal shrinkages of the specimens is calculated.

6. (currently amended) ~~The polytrimethylene terephthalate hollow staple composite fibers as claimed in claim 1, wherein the hollow staple composite fiber in the~~

Polytrimethylene terephthalate hollow composite staple fibers comprising two parts which are constituted of polytrimethylene terephthalate resin components having different intrinsic viscosities from each other, said parts arranged in an eccentric core-in-sheath arrangement ~~is constituted~~ constituting ~~from~~ a sheath part formed ~~the~~ from a low viscosity resin component and a core part formed from ~~the~~ a high viscosity resin component ~~and~~ which is located eccentrically in the sheath part, and the only one hollow part is located within the core part [[.]]

wherein,

(1) said high viscosity resin component has an intrinsic viscosity in the range of from 0.50 to 1.4 dl/g and said low viscosity component has an intrinsic viscosity in the range from 0.40 to 1.30 dl/g, and 0.1 to 0.5 dl/g below that of the said high viscosity resin component, the intrinsic viscosities being determined in o-chlorophenol at a temperature of 35°C;

(2) the cross-section of said only one hollow part has a cross-sectional area corresponding to 2 to 15% of the total cross-sectional area of the hollow composite staple fiber; and

(3) the hollow composite staple fibers exhibit an average web area thermal shrinkage of 30 to 60% determined by such a measurement that the composite staple fibers having a fiber length of 51 mm are formed into a web having a basis mass of 30 g/m2 by a roller carding machine, a plurality of specimens having dimensions of 20 cm x 20 cm are prepared from the web, the specimens are heat-treated in a hot air circulation dryer at a temperature of 120°C for 10 minutes, to allow the specimens to freely shrink,

the web area thermal shrinkages of the specimens are determined in accordance with the equation (1):

Web area thermal shrinkage (%) = [(A- B)/A] x 100 (1)

wherein A represents an area of each specimen before the heat-treatment and B represents an area of the specimen after the heat-treatment, and an average of the resultant web area thermal shrinkages of the specimens is calculated.

7. (new) A process for producing polytrimethylene terephthalate hollow composite staple fibers as claimed in claim 5, comprising the steps of:

melt-spinning two polytrimethylene terephthalate resins, different in intrinsic viscosity from each other, through a hollow side-by-side or eccentric core-in-sheath type composite filament-forming spinneret, to provide undrawn hollow composite filaments;

drawing, in two stages, the undrawn hollow composite filaments at a total draw ratio corresponding to 60 to 80% of the ultimate elongation of the undrawn hollow composite filament, in such a manner that the drawing temperature is 45 to 60°C at the first stage and then 85 to 120°C at the second stage and the drawing ratio for the second stage is controlled to 0.90 to 1.0 so as to adjust the total draw ratio to as mentioned above;

machine-crimping the drawn hollow composite filaments at a temperature of 50 to 80°C;

heat-treating the crimped hollow composite filaments at a temperature of

80°C or less while allowing the crimped hollow composite filament to relax; and

cutting the heat-treated hollow composite filaments to provide hollow composite staple fibers.

8. (new) A process for producing polytrimethylene terephthalate hollow composite staple fibers as claimed in claim 6, comprising the steps of:

melt-spinning two polytrimethylene terephthalate resins, different in intrinsic viscosity from each other, through a hollow side-by-side or eccentric core-in-sheath type composite filament-forming spinneret, to provide undrawn hollow composite filaments;

drawing, in two stages, the undrawn hollow composite filaments at a total draw ratio corresponding to 60 to 80% of the ultimate elongation of the undrawn hollow composite filament, in such a manner that the drawing temperature is 45 to 60°C at the first stage and then 85 to 120°C at the second stage and the drawing ratio for the second stage is controlled to 0.90 to 1.0 so as to adjust the total draw ratio to as mentioned above;

machine-crimping the drawn hollow composite filaments at a temperature of 50 to 80°C;

heat-treating the crimped hollow composite filaments at a temperature of 80°C or less while allowing the crimped hollow composite filament to relax; and

cutting the heat-treated hollow composite filaments to provide hollow composite staple fibers.

2. The following is an examiner's statement of reasons for allowance:

3. The amendment submitted on February 6, 2009 has been entered. Claims 1 and 5 - 6 are amended, claim 2 and 4 are cancelled, claim 3 is withdrawn and claims 1, 3 and 5 - 6 are pending. By way of Examiner's amendment, the subject matter of claims 1, 3 and 5 - 6 are now claims 5 - 8.

4. The amendment requiring that the composite staple fiber has "only one hollow part" which is supported by Applicant's Figures is sufficient to overcome the rejection under 35 USC 103 as being unpatentable over Ochi et al. (US 6,306,499) in view of Tanaka et al. (US 6,455,156). Ochi et al. teaches a side-by-side or eccentrically disposed sheath-core conjugate fibers having a low viscosity component and a high viscosity component, both made of PTT or polytrimethylene terephthalate (see column 5, lines 16 - 40). However, in regards to the amended claim 5 as set forth above by Examiner's Amendment, Ochi et al. fail to teach a side-by-side conjugate fiber having *a larger side part comprising a high viscosity resin component having an intrinsic viscosity range of 0.50 to 1.4 dl/g* and *a smaller side part comprising a low viscosity component having an intrinsic viscosity range of 0.40 to 1.30 dl/g* where the low viscosity component is 0.1 to 0.5 dl/g where the fiber has *only one hollow part located within the larger of the two side parts*. Additionally, in regards to amended claim 6 as set forth above by Examiner's Amendment, Ochi et al. fail to teach a eccentrically disposed sheath-core conjugate fiber having *a sheath part formed from a low viscosity component having an intrinsic viscosity range of 0.40 to 1.30 dl/g* and a *core part*

*formed from a high viscosity component having an intrinsic viscosity range of 0.50 to 1.4 dl/g*, where the low viscosity resin component is 0.1 to 0.5 dl/g below that of the high viscosity resin component where the fiber has *only one hollow part located within the core part*. The secondary reference, Tanaka et al., which was used to provide motivation to have the hollow cross-sectional area correspond to 2 - 15% of the total cross-sectional area of the composite fiber, does not cure the deficiencies of Ochi et al.

5. Other prior art of note: Goda (US 2004/0234757) discloses a polyester (PTT, PET, PBT, etc.) fiber having the claimed sheath-core and side-by-side composite fiber configurations with one hollow part (see Figures of Goda and page 6, [0068]) where the two respective components differ from each other in thermal shrinkability (page 7, [0085 – 0087]) but fail to teach or render obvious *a low viscosity component having an intrinsic viscosity range of 0.40 to 1.30 dl/g* and *a high viscosity component having an intrinsic viscosity range of 0.50 to 1.4 dl/g*, where the low viscosity resin component is 0.1 to 0.5 dl/g below that of the high viscosity resin component. Additionally, Yamada (US 6,372,343) discloses a polytrimethylene composite fiber having a side-by-side or eccentric core-sheath configuration where the two components are different in viscosity which can be hollow having a percentage of hollowness of 5 to 80% (column 3, lines 45 – 65 and column 4, lines 1 - 10) but likewise fail to teach or render obvious *a low viscosity component having an intrinsic viscosity range of 0.40 to 1.30 dl/g* and *a high viscosity component having an intrinsic viscosity range of 0.50 to 1.4 dl/g*, where the low viscosity resin component is 0.1 to 0.5 dl/g below that of the high viscosity resin component.

6. By way of Examiner's Amendment, claims 7 – 8 are added which correspond to the previously withdrawn process claim 3. Amended claims 5 - 6 are directed to an allowable product. Pursuant to the procedures set forth in MPEP § 821.04(B), claim 3, directed to the process of making or using an allowable product, previously withdrawn from consideration as a result of a restriction requirement, is hereby rejoined and fully examined for patentability under 37 CFR 1.104.

Because all claims previously withdrawn from consideration under 37 CFR 1.142 have been rejoined, **the restriction requirement as set forth in the Office action mailed on August 13, 2007 is hereby withdrawn**. In view of the withdrawal of the restriction requirement as to the rejoined inventions, applicant(s) are advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Once the restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. See *In re Ziegler*, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

7. As such, claims 5 – 8 are allowed over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JENNIFER A. CHRISS whose telephone number is (571)272-7783. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 6 p.m., first Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Tarazano can be reached on 571-272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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